
Alexithymia and Dissociative Tendencies



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This study is one of a series exploring the potential of affective variables as predictors of dissociative tendencies. Some clinicians have observed that traumatized children who develop a dissociative coping style also tend to fail to discriminate emotions by verbal means. The study therefore investigated a relationship between dissociation and alexithymia. Undergraduate psychology students were individually tested for dissociative tendencies, alexithymic characteristics, and ability to generate the names of emotions. Dissociation was found to be predicted by some aspects of alexithymia but not by affective fluency. The data are interpreted in terms of the concept of asymmetry of dissociative processes. © 1997 John Wiley & Sons, Inc.

Although dissociative experiences are common in the general population (Irwin, 1985; Ross, Joshi & Currie, 1990), habitual reliance upon dissociation as a coping mechanism can put the person at risk for a dissociative disorder. Considerable effort therefore has been devoted to the empirical investigation of factors contributing to the development of dissociative tendencies. The present study explored the relationship between alexithymia and dissociation.

There is now an impressive body of evidence for a link between dissociative tendencies in adulthood and a history of childhood trauma. Dissociative disordered people report a high incidence of sexual, physical and emotional abuse in childhood (Coons, Bowman, Pellow, & Schneider, 1989; Putnam, Guroff, Silberman, Barban, & Post, 1986; Ross, Miller, Bjornson, Reagor, Fraser, & Anderson, 1991). Nonclinical samples also have demonstrated an association between dissociative tendencies and the incidence of such childhood trauma as a loss in the family, intrafamilial or extrafamilial sexual abuse, and intrafamilial physical abuse (Irwin, 1994a; Sanders, McRoberts, & Tollefson, 1989). If a dissociative coping style tends to be engendered by childhood trauma, what specific psychological effects of these traumas prompt the use of dissociation and become the object of dissociative processes? Several recent studies

This study was funded under the Australian Research Council Small Grants scheme.

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suggest that unresolved emotions associated with the original trauma are pivotal in this context. Dissociative tendencies in adulthood are found to be predicted by a proneness to experiences of grief (Irwin, 1994b), shame and guilt (Irwin, 1994c), anger, depression and anxiety (Irwin, 1995; Norton, Ross, & Novotny, 1990; Putnam et al., 1986). These data might be interpreted to indicate that traumatized children eventually tend to dissociate knowledge of their traumatic experiences from the feelings that these experiences evoked, and at the same time these unresolved affects leave the children prone to experience the same affects in other everyday situations.

Clinical observations certainly confirm the proneness of traumatized children to these affects (Cahill, Llewelyn, & Pearson, 1991). But another emotional characteristic is also reported in this context. Terr (1991) notes that in her clinical experience, children who develop dissociative tendencies following trauma tend to present with "failure to define or acknowledge feelings" (p. 16). Similarly, MacFarlane, Cockriel and Dugan (1990) remark that children who use dissociation in coping with sexual abuse tend eventually to "lose their ability to distinguish among various emotions" (p. 164). These reports raise the possibility of a relationship between dissociative tendencies and alexithymia.

Literally translated, alexithymia means "a lack of words for moods or emotions." The term was formally introduced by Sifneos (1972) to depict a personality profile marked by an inability to verbalize one's feelings, as well as an inability to discriminate between feelings and physical sensations, an inability to discriminate between different affective states, a paucity of fantasy and dreams, and a tendency to think in a concrete, utilitarian way. Alexithymia has been of clinical interest primarily because of its association with somatic symptoms and with a lack of response to psychotherapy (Lesser, 1981). Of particular pertinence to the present study are reports that alexithymic tendencies may be in part a response to traumatic experiences (Krystal, 1988; Shipko, Alvarez, & Noviello, 1983; Zeitlin, McNally, & Cassidy, 1993). In conjunction with the clinical observations of traumatized children cited above, this suggests that alexithymic characteristics may be a predictor of proneness to dissociation.

It must be stressed that highly alexithymic people do not "lack emotions." These subjects' physiological responses to emotive stimuli are consistent with the view that they do experience emotions but simply can not describe such experiences verbally (Papciak, Feuerstein, & Spiegel, 1985). Indeed, despite the literal meaning of *alexithymia*, it is doubtful that highly alexithymic people have a mental lexicon devoid of words for emotions. Data reported by Papciak et al. (1985) suggest that in alexithymic subjects, physiological and cognitive responses have become "decoupled," to use the authors' term. That is, alexithymic people may well have an adequate affective lexicon that can be utilized in purely lexical tasks yet be unable to link this portion of their lexicon to their own subjective states. This distinction is especially cogent in relation to people with dissociative tendencies; such people might well be inclined to dissociate their verbal processes from their emotional processes. The present study therefore sought to explore the relationship between dissociative tendencies and both alexithymia (in the sense of an inability to differentiate personal affective states by verbal means) and affective fluency (the representation of affective descriptors in the person's vocabulary).

METHOD

Design

The study comprised self-report assessments of dissociative and alexithymic tendencies, and a performance test in generating the names of emotions.

Subjects

One hundred participants were recruited from undergraduate psychology students at the University of New England, Australia. The sample comprised 77 women and 23 men, ranging in

age from 18 to 52 years ($M = 21.9$). Previous samples from this population have exhibited a substantial incidence and variety of childhood traumas (Irwin, 1994a).

Materials

Participants completed two self-report questionnaires, one on dissociative experiences and the other on alexithymia.

The measure of proneness to dissociation was Riley's (1988) Questionnaire of Experiences of Dissociation or QED. The QED comprises 26 dichotomous (True/False) items tapping experiences of dissociative phenomena. Scores thus may range from 0 to 26, with higher scores signifying a greater range of dissociative experiences acknowledged by the respondent. The QED was standardized on normal samples. The scale's reliability is satisfactory (Cronbach's $\alpha = .77$; Riley, 1988). The QED has been validated both through application to clinical samples of dissociative disordered people (Dunn, Ryan, Paolo, & Miller, 1993) and by factor analytic comparison to another similar measure (Ray, June, Turaj, & Lundy, 1992).

The measure of alexithymia was the 20 item Toronto Alexithymia Scale or TAS-20 (Bagby, Parker, & Taylor, 1994). The TAS-20 comprises 20 items, and responses to each item are made on a 5-point scale (1 = Strongly Disagree, to 5 = Strongly Agree). The items of the TAS-20 are distributed over three factorially-determined scales. The Difficulty Identifying Feelings scale is an index of respondents' difficulty in identifying an experience as an affective state; for example, respondents may have difficulty in distinguishing sadness from anxiety, or distinguishing any affective state from the accompanying bodily sensations. The Difficulty Describing Feelings scale relates to participants' capacity to name and to depict their feelings verbally. The Externally-Oriented Thinking scale is a measure of the extent to which respondents relate more to objective events than to psychological processes. The score on each of the TAS-20 scales is the sum of the ratings on the component items. The reliability of the scales is satisfactory (Cronbach's $\alpha = .66$ to $.78$, 3-week test-retest reliability = $.77$; Bagby, Parker, & Taylor, 1994). The TAS-20's convergent, discriminant, and concurrent validity has been documented by Bagby, Taylor, & Parker (1994), and its factorial structure has been comprehensively cross-validated (Bagby, Parker, & Taylor, 1994; Parker, Bagby, Taylor, Endler, & Schmitz, 1993).

Procedure

Participants were tested individually in a psychological laboratory by a (female) research assistant. The general nature of the study was explained, and participants were asked to read and to sign an informed consent form.

The participant then undertook a procedure termed the Word Generation Task. This test was designed as a measure of fluency with words designating affective states. The participant was asked to generate orally within a period of 60 seconds a maximum number of words belonging to a nominated category. This task was performed for each of four word categories, namely, wild animals, positive emotions, negative emotions, and furniture. The nature of each category was defined for the participant; additionally, for the two affect-naming conditions, the distinction between an emotion and a physical state was signalled by example. The name of the target category was also displayed on a card placed in front of the participant throughout the 60 second test period.

The participant's responses were recorded on audio tape for later assessment. At that time the number of valid instances generated for each category was determined; in the case of the words for affective states, items with equivocal validity were checked against the affective lexicons compiled by Johnson-Laird and Oatley (1989) and Zevon and Tellegen (1982). As a

Table 1. Standard Multiple Regression of Dimensions of Alexithymia (TAS), Gender, and Age on Dissociative Tendencies (QED) (*N* = 100)

Variables	<i>M</i>	<i>SD</i>	<i>B</i>	β	<i>p</i>	<i>sr</i> ² (unique)
QED (DV)	12.02	4.48				
Tas-20 Scales						
Difficulty Identifying Feelings	17.71	6.17	.324	.45	.000	.118
Difficulty Describing Feelings	14.23	4.71	.042	.04	.724	
Externally-Oriented Thinking	16.76	4.32	-.087	-.08	.398	
Gender			.633	.06	.511	
Age	21.93	6.93	-.029	-.04	.635	
Intercept = 6.993						

Note.— R^2 = .24; Adjusted R^2 = .19; F = .49, p < .0005.

means of statistically controlling for inter-subject differences in general verbal fluency, a score for "nonaffective fluency" was computed as the average number of valid words generated in the two categories, wild animals and furniture. The Word Generation Task thus yielded three scores for each participant: the number of positive emotions named, the number of negative emotions named, and nonaffective fluency.

The participant then was administered the QED survey of dissociative experiences and the TAS-20 measure of alexithymic tendencies.

RESULTS

Results of analyses of the questionnaire data will be reported first, followed by those for the Word Generation Task.

Descriptive statistics (mean and standard deviation) of scores on the QED and the three TAS-20 scales are given in Table 1, and a Pearson correlation matrix for these variables is presented in Table 2.

To assess the value of the alexithymia scales in predicting level of dissociation, a standard multiple regression was performed between the QED as the dependent variable and the three TAS-20 scales, gender, and age as independent variables. In a standard multiple regression all independent variables are entered into the regression equation simultaneously; this is the recommended method when there are insufficient theoretical grounds for controlling the order of entry of variables (Tabachnick & Fidell, 1989). Analysis was conducted using SYSTAT (1992)

Table 2. Pearson Correlation Matrix for the Dimensions of Alexithymia (TAS) and Dissociative Tendencies (QED) (*N* = 100)

	TAS-1	TAS-2	TAS-3
TAS-1: Difficulty Identifying Feelings			
TAS-2: Difficulty Describing Feelings	.62*		
TAS-3: Externally-Oriented Thinking	.11	.37**	
QED	.47*	.30***	-.02

Note.—Bonferroni corrected significance: * p < .001; ** p < .01; *** p < .05.

Table 3. Mean and Standard Deviation of Number of Valid Items Produced in Word Generation Task ($N = 100$)

Condition	<i>M</i>	<i>SD</i>
Positive Emotions	5.20	2.35
Negative Emotions	6.41	2.84
Fluency	16.54	4.27

MGLH/Regression software. Table 1 presents the unstandardized regression coefficients (B) and intercept, the standardized regression coefficients (β), the semipartial correlations (sr^2), and R , R^2 and adjusted R^2 . Given that two of the three intercorrelations among the scales of the TAS-20 (Table 2) are significant, the possibility of multicollinearity must be considered. Tolerance statistics for the regression ranged between .52 and .99; because these are well above zero, multicollinearity among the independent variables may be deemed of no practical concern (Darlington, 1990).

The multiple correlation R for the regression was significantly different from zero [$F(5,94) = 5.78, p < .0005$]. One of the independent variables, the Identifying Feelings scale of the TAS-20, contributed significantly to the prediction of QED scores ($sr^2 = .118$). Altogether, 24% (or 19% adjusted) of the variability in QED performance was predicted by scores on the three TAS-20 scales, gender, and age.

Descriptive statistics for the three variables indexed by the Word Generation Task are given in Table 3. To assess the extent of a relationship between affective fluency and the incidence of dissociative experiences, a standard multiple regression was performed between the QED as the dependent variable and the three Word Generation Task scores, gender, and age as the independent variables. The multiple correlation for this regression did not differ significantly from zero [$R = .05, F(5,94) = .89, p = .49$]. Fluency with affective words and that with nonaffective words do not predict dissociative tendencies. Although they are not directly pertinent to the study's hypotheses, brief mention may be made of data bearing on the distinction between a person's inability to put their emotions into words (as indexed by the TAS-20) and the meager representation of affective words in the person's vocabulary (as indexed by the Word Generation Task). The three dimensions of the TAS-20 failed to correlate significantly with scores on the Word Generation Task. While acknowledging these results are null, they are consistent with the view that an (alexithymic) person's inability to describe their feelings verbally may be due to a dissociation between feelings and verbal processes rather than to an impoverished affective vocabulary. Alexithymia evidently does not entail a lack of words for emotions but rather, a lack of facility in linking personal states to those words.

DISCUSSION

Regression analysis of QED scores against dimensions of alexithymia showed that the Difficulty Identifying Feelings scale is a significant predictor of dissociative tendencies. This finding can be broadened to some extent by taking account of the correlational data (see Table 2). Clearly there is a degree of commonality between the Difficulty Identifying Feelings and the Difficulty Describing Feelings scales of the TAS-20, and both of these scales correlate with the QED. With the exception of externally-oriented thinking, the major part of the alexithymia domain therefore is related to level of dissociation. This relationship nevertheless does not appear to be due to an impoverished vocabulary for emotions among people prone to dissoci-

ation. Performance of the Word Generation Task did not predict QED scores. Taken in conjunction, the data of the study demonstrate that people with dissociative tendencies have a "normal" affective vocabulary but have difficulty in utilizing this vocabulary to depict their own affective states. This suggests that in such people the verbal processing system tends to be dissociated from affective processes.

If dissociation-prone people are alexithymic, how is it that they report experiences of grief, shame, guilt, anger, depression, and anxiety? Possibly these are mutually exclusive effects of the dissociative defense. Some traumatized people might use dissociation to become alexithymic for the trauma-associated affects. Other people might rely on dissociation to separate the knowledge of their trauma from the affects, thereby making themselves prone to such affects in other everyday situations. On the other hand, the presentation by dissociation-prone people of both alexithymic characteristics and trauma-related affects need not be seen as inconsistent. Some people may be unable to find their own words to describe how they feel, yet still be capable of affirming (or denying) propositions that on occasion they are bereft, ashamed, remorseful, irate, sad, or uneasy.

Although there may be other conceptual frameworks within which to accommodate the available empirical findings on affective predictors of dissociation, the above account has the interesting implication that when two mental processes are dissociated, the dissociation need not necessarily be symmetrical. In the information-processing system of the person with dissociative tendencies, it might be difficult to make a connection from an affective state to the mental lexicon, but a connection from the affective lexicon to affective processes might readily be established. The notion of an asymmetrical operation of dissociative processes does have some precedent in the clinical literature. In cases of dissociative fugue and dissociative identity disorder, for example, the person in one psychological state *X* may be amnesic for events that occurred during another state *Y*, yet in state *Y* there may be some recollection of state *X* events (Kluft, 1991/1993). It may be noted that a similar asymmetry in the dissociation of lexical functions is found in rare cases of aphasia. Some brain-injured people can generate words in a nominated category and can point to the appropriate object or picture when given its name, yet they have considerable difficulty in retrieving a name when given an object or picture from the same category (Hart, Berndt, & Caramazza, 1985; Semenza & Zettin, 1989). Asymmetry of dissociation therefore may reflect the fact that the (neurological or information-processing) pathway from mental process *A* to mental process *B* is physically and functionally distinct from the pathway from *B* to *A*.

The data of the present study nevertheless should be regarded as exploratory findings. A more comprehensive investigation could entail structural equation modelling of data on childhood trauma, proneness to a range of affective states, alexithymia, and dissociative tendencies. On the other hand, many other factors involved in the development of dissociative processes remain to be identified, and a study based on structural equation modelling might best be deferred until more of these variables can be included.

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